Claims

1. Plate heat exchanger that consists of several pieces of sheet metal that are arranged parallel to one another, that are at least partially corrugated and that form a considerable number of heat-exchange passages, as well as at least one header that creates a flow connection among at least some of the heat-exchange passages, characterized in that at least two parts (1, 2, 3) of the plate heat exchanger consist of metallic materials that cannot be welded to one another.

2. Plate heat exchanger according to, wherein two parts (1, 2, 3) are connected integrally together.

3. Plate heat exchanger according to claim 2, wherein an intermediate piece (5) that consists of two different metals or metal alloys (6, 7) is found between the two parts.

4. Plate heat exchanger according to claim 3, wherein intermediate piece (5) is produced by explosive plating.

5. Plate heat exchanger according to one of claims 1 to 4, wherein sheets (2) consist of aluminum.

6. Plate heat exchanger according to one of claims 1 to 5, wherein header (3) consists of steel, especially Cr-Ni steel, low-temperature steel or C-steel.

7. Plate heat exchanger according to one of claims 3 to 6, wherein intermediate piece (5) contains aluminum and steel.